Wind turbines - Part 23: Full-scale structural testing of rotor blades

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 61400-23:2014 sisaldab Euroopa standardi EN 61400-23:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 61400-23:2014 consists of the English text of the European standard EN 61400-23:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.05.2014.	Date of Availability of the European standard is 23.05.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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English Version

Wind turbines - Part 23: Full-scale structural testing of rotor blades (IEC 61400-23:2014)

Éoliennes - Partie 23: Essais en vraie grandeur des structures des pales de rotor (CEI 61400-23:2014)

Windenergieanlagen - Teil 23: Rotorblätter - Experimentelle Strukturprüfung (IEC 61400-23:2014)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 88/420/CDV, future edition 1 of IEC 61400-23, prepared by IEC TC 88 "Wind turbines" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61400-23:2014.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-02-13
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-05-13

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Endorsement notice

The text of the International Standard IEC 61400-23:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61400-22	NOTE	Harmonised as EN 61400-22 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60050-415	1999	International Electrotechnical Vocabulary - Part 415: Wind turbine generator systems	-	-
IEC 61400-1	2005	Wind turbines - Part 1: Design requirements	EN 61400-1	2005
ISO/IEC 17025	2005	General requirements for the competence of testing and calibration laboratories	EN ISO/IEC 17025	2005
ISO 2394	1986	General principles on reliability for structures	-	-

CONTENTS

INTRODUCTION

The blades of a wind turbine rotor are generally regarded as one of the most critical components of the wind turbine system. In this standard, the demands for full-scale structural testing related to certification are defined as well as the interpretation and evaluation of test results.

Specific testing methods or set-ups for testing are not demanded or included as full-scale blade testing methods historically have developed independently in different countries and laboratories.

Furthermore, demands for tests determining blade properties are included in this standard in order to validate some vital design assumptions used as inputs for the design load calculations.

Any of the requirements of this standard may be altered if it can be suitably demonstrated that the safety of the system is not compromised.

The standard is based on IEC TS 61400-23 published in 2001. Compared to the TS, this standard only describes load based testing and is condensed to describe the general principles and demands.